

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
9 June 2005 (09.06.2005)

PCT

(10) International Publication Number
WO 2005/051268 A3

(51) International Patent Classification⁷: **A61F 13/20**

(21) International Application Number:
PCT/US2004/038958

(22) International Filing Date:
22 November 2004 (22.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/719,786 21 November 2003 (21.11.2003) US

(71) Applicant (for all designated States except US): **THE PROCTER & GAMBLE COMPANY [US/US]**; One Procter & Gamble Plaza, Cincinnati, OH 45202 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **CARLIN, Edward, Paul [US/US]**; 6621 Charleston Park Drive, Cincinnati, OH 45240 (US).

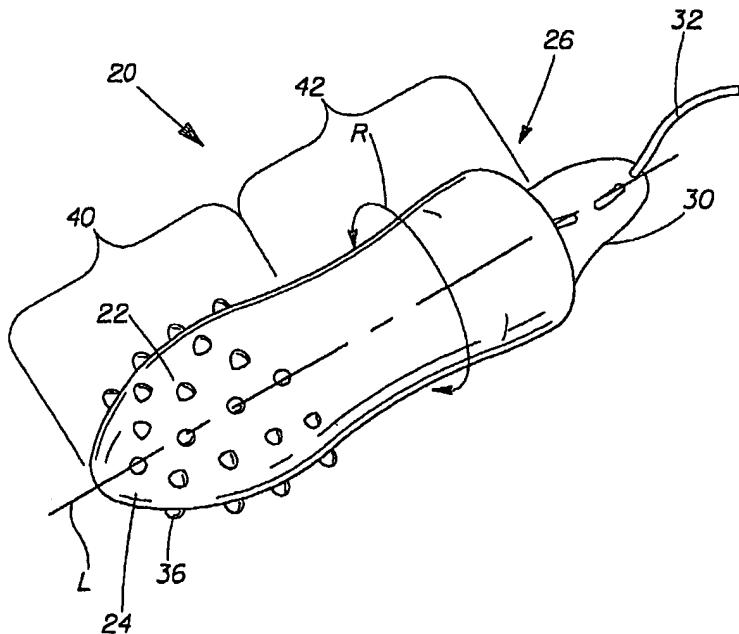
(74) Common Representative: **THE PROCTER & GAMBLE COMPANY**; c/o Reed, T., David, 6110 Center Hill Road, Cincinnati, OH 45224 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: TAMпон WITH DIVERSE SURFACE AREAS



WO 2005/051268 A3

(57) Abstract: A tampon for feminine hygiene that has an insertion end, a withdrawal end, a length, a radius, a longitudinal axis, a radial axis, and an outer surface. The tampon is made of compressed fibrous material. A measured portion of the outer surface of the insertion end of the tampon includes a first surface area. A measured portion of the outer surface of the withdrawal end includes a second surface area. The first surface area is different than the second surface area. The first surface area may be greater than the second surface area.

**Published:**

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(88) Date of publication of the international search report:

11 August 2005

INTERNATIONAL SEARCH REPORT

Int'l Application No
PCT/US2004/038958

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61F13/20

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/151859 A1 (SCHOELLING HANS WERNER) 17 October 2002 (2002-10-17) paragraph 39 – sentence 1 claims; figures -----	1-10
X	US 2001/014348 A1 (SCHOELLING HANS WERNER) 16 August 2001 (2001-08-16) paragraph '0022! -----	1,3,5,9, 10
X	US 2002/120243 A1 (KRAEMER ROBERT ET AL) 29 August 2002 (2002-08-29) paragraphs '0085! – '0092!; figures -----	1-10
X	US 3 428 044 A (HOWARD A. WHITEHEAD ET AL) 18 February 1969 (1969-02-18) column 4, lines 3-50; claims; figures -----	1-4,9,10 -/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the International filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the International filing date but later than the priority date claimed

"T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed Invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed Invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the International search

1 June 2005

Date of mailing of the International search report

10/06/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl.
Fax: (+31-70) 340-3016

Authorized officer

Douskas, K

INTERNATIONAL SEARCH REPORT

In International Application No
PCT/US2004/038958

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	WO 2004/028428 A (JOHNSON & JOHNSON GMBH; SCHOELLING, HANS-WERNER) 8 April 2004 (2004-04-08) claims; figures -----	1-10
X	DE 18 15 374 A1 (VEREINIGTE PAPIERWERKE SCHICKEDANZ & CO) 17 September 1970 (1970-09-17) claims; figures -----	1-4

INTERNATIONAL SEARCH REPORT

Information on patent family members

In International Application No
PCT/US2004/038958

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
US 2002151859	A1 17-10-2002	DE BR BR CA CA CN CN DE WO WO EP EP MX MX NO NO ZA ZA	10114786 A1 0208438 A 0208461 A 2442041 A1 2442271 A1 1531415 A 1535128 A 20121759 U1 02078586 A2 02076357 A2 1381339 A2 1383453 A2 PA03008862 A PA03008863 A 20034290 A 20034292 A 200308273 A 200308275 A	10-10-2002 30-03-2004 02-03-2004 10-10-2002 03-10-2002 22-09-2004 06-10-2004 22-05-2003 10-10-2002 03-10-2002 21-01-2004 28-01-2004 05-05-2004 05-05-2004 18-11-2003 19-11-2003 25-10-2004 25-10-2004
US 2001014348	A1 16-08-2001	NONE		
US 2002120243	A1 29-08-2002	CA CN EP WO ZA	2432795 A1 1551749 A 1381330 A2 02056793 A2 200305621 A	25-07-2002 01-12-2004 21-01-2004 25-07-2002 27-08-2004
US 3428044	A 18-02-1969	GB	1167034 A	15-10-1969
WO 2004028428	A 08-04-2004	DE AU WO	10244874 A1 2003277908 A1 2004028428 A1	08-04-2004 19-04-2004 08-04-2004
DE 1815374	A1 17-09-1970	NONE		